

Package: pragr (via r-universe)

August 10, 2024

Title Tools for visualising Prague data

Version 0.3.0.9000

Description A bridge between Prague geodata and R to enable visualisation. Currently, it provides access to raster map layers provided by the Prague geoportal and several utilities.

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URL <https://github.com/petrbouchal/pragr>,
<https://petrbouchal.xyz/pragr/>

BugReports <https://github.com/petrbouchal/pragr/issues>

Depends R (>= 3.5)

Imports abind (>= 1.4.5), curl (>= 4.0), CzechData (>= 0.5.5), digest, dplyr (>= 0.8.3), geofacet (>= 0.2.0), ggplot2 (>= 3.2.0), grDevices (>= 3.6.0), grid (>= 3.6.0), here (>= 0.1), httr (>= 1.4.0), jpeg (>= 0.1-10), jsonlite (>= 1.6), lubridate (>= 1.7.4), magrittr (>= 1.5), png (>= 0.1.7), purrr (>= 0.3.2), rlang (>= 0.4.1), sf (>= 0.7.7), stringr (>= 1.4.0), tibble (>= 2.1.3), tidyr (>= 0.8.3), usethis (>= 1.5.1), utils (>= 3.6.0)

Suggests ggsn, knitr, leaflet (>= 2.0.3), leaflet.esri (>= 1.0.0), leaflet.extras (>= 1.0.0), pkgdown, ragg, rmarkdown

VignetteBuilder knitr

Remotes JanCaha/CzechData

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Repository <https://petrbouchal.r-universe.dev>

RemoteUrl <https://github.com/petrbouchal/pragr>

RemoteRef HEAD

RemoteSha 858fbb96f69eda9ac0922e8dfbc966948e545073

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district_age_median *Median age by district*

Description

Median age of each of the 57 districts by 5-year age groups and sex, 2011-2019, from the Czech Statistical Office

Usage

```
district_age_median
```

Format

A data frame with 1539 rows and 4 variables:

sex character. Sex

year integer. Year, 2011-2019

median_age double. Median age.

KOD_ZUJ character. district code (ZUJ code, CZSO codelist 51 <http://apl.czso.cz/iSMS/cisdet.jsp?kodicis=51>)

Details

Source: <https://www.czso.cz/csu/xa/casove-rady-za-mestske-casti-prahy>

See Also

Other Statistics: [district_age_structure](#)

district_age_structure

District population by age and sex

Description

Population of each of the 57 districts by 5-year age groups and sex, 2011-2019, from the Czech Statistical Office

Usage

district_age_structure

Format

A data frame with 9747 rows and 5 variables:

KOD_ZUJ character. district code (ZUJ code, CZSO codelist 51 <http://apl.czso.cz/iSMS/cisdet.jsp?kodcis=51>)

KOD_S0 character. admin. district code (CZSO codelist 72 - CISSOP <http://apl.czso.cz/iSMS/cisdet.jsp?kodcis=72>)

count double. number of residents.

age integer. 5-year age group, except 85+.

year integer. Year; data for 31. 12.

sex character. Sex.

Details

Source: <https://www.czso.cz/csu/xa/casove-rady-za-mestske-casti-prahy>

See Also

Other Statistics: [district_age_median](#)

district_geofacet *Dataset to be used in the geofacet package*

Description

Use this as the grid argument to `geofacet::facet_geo()`. The layout corresponds to `district_tilegram`.

Usage

`district_geofacet`

Format

A data frame with 57 rows and 11 variables:

`code` character. RUIAN code. Normally should serve as ID to distribute your data points into grid cells.

`label` character. Three-character unique label.

`row` integer. row number.

`col` integer. column number.

See Also

Other Mapping: [district_hexogram](#), [district_names](#), [district_tilegram](#), [prg_basemap\(\)](#), [prg_endpoints](#), [prg_tile\(\)](#)

district_hexogram *Equal-area hexogram of Prague districts*

Description

Equal-area hexogram of 57 Prague districts. Best available representation though some district tiles neighbor districts they do not in reality.

Usage

`district_hexogram`

Format

A data frame with 57 rows and 11 variables:

kod character. RUIAN code.
 nazev character. Full name.
 label character. Three-character unique label.
 mop_kod character. Prague district code.
 spo_kod character. Admin district code.
 pou_kod character. Higher-level unit code.
 okres_kod character. District code.
 CENTROIX double. X coordinate of centroid.
 CENTROIY double. Y coordinate of centroid.
 row integer. row number.
 col integer. column number.
 geometry list. geometry.

See Also

Other Mapping: [district_geofacet](#), [district_names](#), [district_tilegram](#), [prg_baseimap\(\)](#), [prg_endpoints](#), [prg_tile\(\)](#)

district_names	<i>Table of several variants of each districts names, with code</i>
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Description

For when a shorter label is needed or for linking with other data by name.

Usage

```
district_names
```

Format

A data frame with 57 rows and 11 variables:

kod character. RUIAN code.
 label character. Three-character unique label.
 nazev integer. full name.
 name_medium integer. shortened name.
 name_short integer. short name.
 name_spaced integer. full name with spaced dash.

See Also

Other Mapping: [district_geofacet](#), [district_hexogram](#), [district_tilegram](#), [prg_baseimap\(\)](#), [prg_endpoints](#), [prg_tile\(\)](#)

district_tilegram	<i>Equal-area tilegram of Prague districts</i>
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Description

Equal-area tilegram of 57 Prague districts. Best available representation though some district tiles neighbor districts they do not in reality.

Usage

```
district_tilegram
```

Format

A data frame with 57 rows and 11 variables:

kod character. RUIAN code.

nazev character. Full name.

label character. Three-character unique label.

mop_kod character. Prague district code.

spo_kod character. Admin district code.

pou_kod character. Higher-level unit code.

okres_kod character. District code.

CENTROIX double. X coordinate of centroid.

CENTROIY double. Y coordinate of centroid.

row integer. row number.

col integer. column number.

geometry list. geometry.

See Also

Other Mapping: [district_geofacet](#), [district_hexogram](#), [district_names](#), [prg_baseimap\(\)](#), [prg_endpoints](#), [prg_tile\(\)](#)

`prg_basemap`*Prague base maps for ggplot2*

Description

Include raster maps from Prague geoportal in your ggplot map

Usage

```
prg_basemap(  
  data,  
  image_service = "orto",  
  layer = "",  
  width = 900,  
  alpha = 1,  
  buffer = 0,  
  verbose = F  
)
```

Arguments

<code>data</code>	sf data frame from which to extract the bounding box
<code>image_service</code>	map service from which to draw the map; <code>prg_endpoints</code> provides details.
<code>layer</code>	layer from map service to use, see https://mpp.praha.eu/arcgis/rest/services/
<code>width</code>	width in pixels, in effect sets image resolution; integer or "max"
<code>alpha</code>	transparency of the tile
<code>buffer</code>	distance between feature end and image end; for EPSG 5514 in meters.
<code>verbose</code>	display information on image URLs and image processing.

Value

list including raster annotation layers for ggplot2

See Also

Other Mapping: [district_geofacet](#), [district_hexogram](#), [district_names](#), [district_tilegram](#), [prg_endpoints](#), [prg_tile\(\)](#)

Examples

```
## Not run:  
praha1 <- CzechData::load_RUIAN_settlement(prg_kod, "MOMC_P", WGS84 = F) %>%  
  filter(nazev == 'Praha 1')  
  
ggplot() +  
  prg_basemap(data = praha1, alpha = .8, buffer = 200,
```

```
        image_service = 'mapy_archiv', layer = 6) +  
geom_sf(data = praha1, fill = alpha("red", 0.6), colour = NA) +  
theme_void()  
  
## End(Not run)
```

prg_bbox_krovak *Prague bbox in EPSG 5514 (Krovak)*

Description

Prague bbox in EPSG 5514 (Krovak)

Usage

prg_bbox_krovak

Format

named numeric of class bbox, length 4
Prague RUIAN code

See Also

Other Codes and metadata: [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_bbox_wgs84 *Prague bbox in EPSG 4326 (WGS 84)*

Description

Prague bbox in EPSG 4326 (WGS 84)

Usage

prg_bbox_wgs84

Format

named numeric of class bbox, length 4
Prague RUIAN code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_endpoints	<i>IPR Map Services</i>
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Description

Contains information on a selection of available Prague raster map services. Can be used manually to inspect services and is used internally by `prg_tile()` and `prg_basemap()` for retrieving data from servers.

Usage

```
prg_endpoints
```

Format

A data frame with 18 rows and 5 variables:

`name` character. Name of the service, to be used as parameter in `prg_tile()` and `prg_basemap()`

`type` character. "tile" or "image"

`description` character. Description of the map source

`endpoint` character. endpoint. Used internally

`url` character. URL, used internally but also points to human readable interface.

See Also

Other Mapping: [district_geofacet](#), [district_hexogram](#), [district_names](#), [district_tilegram](#), [prg_basemap\(\)](#), [prg_tile\(\)](#)

prg_fua_oecd	<i>Prague code in OECD database of Functional Urban Areas</i>
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Description

Prague code in OECD Functional Urban Area database.

Usage

```
prg_fua_oecd
```

Format

character vector of length 1

Prague code in OECD Functional Urban Area database.

Details

See <https://www.oecd.org/cfe/regional-policy/functionalurbanareasbycountry.htmz>

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_ico	<i>Prague ICO code</i>
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Description

Prague ICO code

Usage

prg_ico

Format

character vector of length 1
Prague ICO code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_kod	<i>Prague RUIAN code</i>
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Description

Prague RUIAN code

Usage

prg_kod

Format

character vector of length 1
Prague RUIAN code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_kraj

Prague 'kraj' code

Description

Prague 'kraj' code. Comes from CZSO registry 100, KRAJ_NUTS.

Usage

prg_kraj

Format

character vector of length 1

Prague kraj code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_lau1

Prague LAU1 code

Description

Prague LAU1 code - level of okres.

Usage

prg_lau1

Format

character vector of length 1

Prague LAU1 code. Comes from CZSO registry 109 - OKRES_LAU.

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_metro_oecd	<i>Prague code in OECD CITIES database of data on Functional Urban Areas</i>
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Description

Prague code in OECD database on Metropolitan Areas.

Usage

prg_metro_oecd

Format

character vector of length 1

Prague code in OECD Functional Urban Area database.

Details

See <https://stats.oecd.org/Index.aspx?DataSetCode=CITIES>

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_nuts2	<i>Prague NUTS2 code</i>
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Description

Prague NUTS2 code

Usage

prg_nuts2

Format

character vector of length 1

Prague NUTS2 code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts3](#), [prg_okres_nuts](#), [prg_okres](#)

prg_nuts3

Prague NUTS3 code

Description

Prague NUTS3 code, level of kraj. Comes from CZSO registry 108 - NUTS3-2004.

Usage

prg_nuts3

Format

character vector of length 1
Prague NUTS3 code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_okres_nuts](#), [prg_okres](#)

prg_okres

Prague 'okres' code

Description

Prague 'okres' code. Comes from CZSO registry 101 - OKRES_NUTS.

Usage

prg_okres

Format

character vector of length 1
Prague okres code

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres_nuts](#)

prg_okres_nuts	<i>Prague 'okres LAU' code</i>
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Description

Prague 'okres LAU' code. Comes from CZSO register 101 (OKRES_NUTS) - yes these are confusing but that is how it is.

Usage

```
prg_okres_nuts
```

Format

character vector of length 1
Prague okres (NUTS) code.

See Also

Other Codes and metadata: [prg_bbox_krovak](#), [prg_bbox_wgs84](#), [prg_fua_oecd](#), [prg_ico](#), [prg_kod](#), [prg_kraj](#), [prg_lau1](#), [prg_metro_oecd](#), [prg_nuts2](#), [prg_nuts3](#), [prg_okres](#)

prg_tile	<i>Prague tiles for ggplot2 plots</i>
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Description

Include raster tiles for Prague in ggplot2

Usage

```
prg_tile(  
  data,  
  tile_service = "orto",  
  zoom = 6,  
  alpha = 1,  
  buffer = 0,  
  verbose = F  
)
```

Arguments

data	sf data frame from which to extract the bounding box
tile_service	map service from which to draw the map (see prg_endpoints), or a URL of a service.
zoom	zoom level, from 0 to the service's limit
alpha	transparency of the tiles.
buffer	distance between feature end and tile end; for EPSG 5514 in meters.
verbose	display information on tile URLs and image processing.

Value

list including raster annotation layers for ggplot2

See Also

Other Mapping: [district_geofacet](#), [district_hexogram](#), [district_names](#), [district_tilegram](#), [prg_basemap\(\)](#), [prg_endpoints](#)

Examples

```
## Not run:
praha1 <- CzechData::load_RUIAN_settlement(prg_kod, "MOMC_P", WGS84 = F) %>%
  filter(nazev == 'Praha 1')

ggplot() +
  prg_tile(data = praha1, zoom = 10, alpha = .7, buffer = 200,
           tile_service = 'orto') +
  geom_sf(data = praha1, fill = alpha("red", 0.6), colour = NA) +
  theme_void()

## End(Not run)
```

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